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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,375	08/02/2001	Ray Whitney	01-471	3959

7590

12/23/2005

Law Offices of John D. Gugliotta, P.E., Esq.
202 Delaware Building
137 South Main Street
Akron, OH 44308

EXAMINER

NGUYEN, MY XUAN

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/921,375	WHITNEY, RAY	
	Examiner	Art Unit	
	My X. Nguyen	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 09/30/2005. Claims 1-14 are now pending in the present application. **This action is made final.**

Specification

2. The disclosure is objected to because of the following informalities:
 - a. PTSN is used as an acronym for Public Switch Telephone Network (Background of the Invention, Page 2, Line 8), examiner assumes applicant means to use PSTN.
 - b. The references the applicant uses should be included in an Information Disclosure Statement (IDS) and not in the body of the specifications (Background of the Invention, Page 3).
 - c. The acronyms PC (Page 3) and PCS (Page 5) should be fully described before first being used.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 recites the limitation "said loudspeaker." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,084 (Phillips) and further in view of U.S. Patent No. 6,778,519 (Harrell et al.) and U.S. Patent No. 5,646,635 (Cockson et al.).

For claims 1, 3, 4, and 6, Phillips teaches a radiotelephone card (modem) that communicates to a wireless communication system where the radiotelephone card (modem) is inserted into a standard PCMCIA slot within a lap-top computing device (Fig. 1, Col. 3, Lines 39-42), read as a PCMCIA card configuration associated with a laptop computer and further read as a modem integrated with the PCMCIA card. Phillips also teaches a plurality of pins that form a male connector to receive a corresponding female connector of the PCMCIA card (Col. 3, Lines 39-42) and the use of an antenna that is movably mounted to the radiotelephone card (modem) (Fig. 1, Col. 2, Lines 55-57). Phillips further teaches an audio jack provided for providing audio input and output to and from the radiotelephone card (modem) (Col. 3, Lines 65-67) and an audio input/output block coupled to a data processor (loudspeaker and microphone coupled to a microprocessor via an audio interface block) (Fig. 4).

What Phillips does not disclose explicitly is an antenna with a protective cap using a swivel joint and the implementation of a camera, microphone, and a loudspeaker.

As to the antenna, Cockson et al. teaches the use of an antenna that has a protective cap and also a swivel knuckle (joint) that rotates the antenna (Figs. 10-15, Col. 5, Lines 49-53).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the feature with the system of Phillips because the said features of an antenna are old and well known in the prior art. Because the design of using a protective cap and a swivel joint is one of many variations of designs for antennas and is very well known, it would be beneficial if this particular design were implemented to the system of Phillips. The motivation to implement said antenna is to provide an efficient means to dynamically obtain a best signal and avoid damage to the antenna.

As to the features of implementation of a camera, microphone, and loudspeaker, Phillips discloses the use of an audio input and output jack. It is inherent to use a microphone as an audio input device and a loudspeaker as an audio output device. Furthermore, Harrell et al. discloses the use of a PCMCIA card interface of a portable computer to link to a plurality of peripherals (Col. 3, Lines 27-30), including a video capture device (Col. 8, Lines 1-6).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the feature with the system of Phillips because the

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said features are well known in the prior art. It is inherent that a video capture device includes a camera. Because the utilization of a multifunctional PC card (PCMCIA) is well known, it would be beneficial to include a function of using a camera. The motivation to implement said camera is to provide the user an effective means to do multiple tasks with a single PCMCIA card.

5. Claims 2, 7, 8, 9, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Harrell et al. and Cockson et al. and further in view of U.S. Patent No. 6,088,648 (Shah et al.).

As to claims 2, 7, 8, 9, 10, and 11, Phillips has been discussed above. What Phillips does not explicitly teach is communicating to a satellite link and wireless relay communication system, a modem comprising at least three tuner cards for a multi-task video screen split, and a modem comprising nine tuner cards.

However, Shah et al. teaches a PCMCIA card modem capable of any type of wireless communication means, including satellite communication, for transporting data signals, voice signals, and video signals (transmission of video, voice, text, fax, and satellite television broadcast) (Col. 9, Lines 60-66, Col. 10, Lines 1-3). Harrell et al. teaches a PCMCIA card interface of a portable computer to link to a plurality of peripherals (Col. 3, Lines 27-30), including a video capture device, a facsimile machine, a television, and an audiovisual device (transmission include video, voice, text, fax, and viewing of television broadcast) (Col. 8, Lines 1-6). Shah et al. further teaches a display that can be divided into at least two regions or segments from the input signal of the

PCMCIA card modem (Col. 5, Lines 20-22). It would be obvious to one with ordinary skill in the art to interpret at least two display segments as displaying a possibility of nine frames, and it is inherent that the frame size could be of equivalent dimensions.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the features of to the system of Phillips because the said features are old and well known in the prior art. Because wireless communications encompasses many different systems, using a satellite communication would be a preference based upon the user. Also, because multiple types of data are being transmitted through the wireless communication, it would be beneficial to display each data type separately into its own segment of a display. The motivation to implement the said features with the system of Phillips is to provide the user an efficient means to view all transmitted data in a compact manner to distinguish the differences of the incoming/outgoing data.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Harrell et al. and Cockson et al. and further in view of WO Foreign Patent 9953437A1 (Shobara et al.).

As to claim 5, Phillips has been discussed above. What Phillips does not explicitly teach is a PCMCIA enclosure that is removable. However, Shobara et al. discloses a frame kit for a PC card having a front lock engaging piece for engaging the panels with each other in their locked state (Abstract, Figs. 1-9). It is obvious to one with ordinary skill in the art a PC card broadly encompasses a PCMCIA card.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement such a feature to the system of Phillips because it is old and well known in the prior art. The design of the frame of a PCMCIA card is user dependent, but since one type of configuration is to use front locks to keep the enclosure together, it would be beneficial to unlock the enclosure to access the components. The motivation to implement the feature of a removable enclosure is to easily disassemble the PCMCIA card to fix or maintain the components therein.

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Harrell et al., Cockson et al., and Shah et al. and further in view of U.S. Patent No. 5,428,671 (Dykes et al.) and U.S. Patent No. 6,917,646 (Chianale et al.).

As to claims 12 and 13, Phillips does not explicitly teach a data bus connected to a universal asynchronous receiver transmitter (UART) via a first bi-directional data path as claimed and the signals from the satellite link passing through a series of line amplifiers and switches. However, such standard connections and line amplifiers and switches are old and well known in the prior art as taught by Dykes et al. and Chianale et al., respectively.

Dykes et al. teaches a bidirectional connection between the computer and the UART including a parallel bus, a serial receive bus, a serial transmit bus, a microcontroller, a second parallel bus, a second serial transmit bus, a second serial receive bus, a digital signal processing (DSP) support module, wherein the

microcontroller inherently aligns data in the proper configuration to be processed by voice, data, fax, and a video processor, and the DSP inherently performs all necessary operations on the data, including handshaking verification, through a series of built in algorithms in order to communicate to the modem (Fig. 2, Col. 6, Lines 51 to Col. 8, Line 63).

Chianale et al. teaches the use of multiple amplifiers interposed between a modem output and a transmit line and between the modem input and receive line (Fig. 1, Col. 2, Lines 44-52, Col. 3, Lines 32-34). Chianale further teaches the implementation of a switch in conjunction with the modem and line amplifiers (Fig. 2 Col. 4, Lines 8-11).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement such features with the system of Phillips because the features are old and well known in the prior art. The motivation to implement the said features is to provide an efficient means to transmitting and receiving the data from the satellite communication link to the wireless PCMCIA modem.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Harrell et al. and Cockson et al. and further in view of U.S. Patent No. 5,566,226 (Mizoguchi et al.).

Regarding claim 14, Phillips has been discussed above. What Phillips does not explicitly teach is a modem hingedly attached as a free end of a cellular telephone unit being dimensionally configured to match PCMCIA standards.

However, Mizoguchi et al. does teach a portable telephone apparatus comprising of a subsidiary case pivotally connected to a lower end of the main case by a hinge (Fig. 2, Col. 3, Lines 24-25). Mizoguchi further teaches the subsidiary case has a size designed to the standards of a PCMCIA format (Fig. 2, Col. 3, Lines 46-50).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have implemented such a feature in the system of Phillips because the said feature of Mizoguchi et al. is old and well known in the prior art. Because it is well known to implement a PCMCIA card format on a portable telephone unit, one with ordinary skill in the art could utilize the modem of the system, or any object capable of a PCMCIA configuration, in conjunction with the portable telephone. The motivation to implement such a feature with the modem is to provide a multifunctional cellular phone capable of many functions suiting the user's needs.

Response to Arguments

9. Applicant's arguments filed 09/30/2005 have been fully considered but they are not persuasive.

As to applicant's argument to claim 1 regarding there is nothing taught in the cited references for correspondence to a specific wireless system, examiner respectfully disagrees. Phillips discloses a radiotelephone card. By the very design and purpose of a radiotelephone card, one with ordinary skill in the art is able to incorporate that there exists a wireless system. In addition, Harrell et al. discloses a computing environment

in which a plurality of portable computers use a spread spectrum communications link to wirelessly communicate with and receive input from a plurality of peripheral devices, read as the claimed wireless communication system (Abstract). Furthermore, Cockson et al. discloses a coaxial cable 12, as part of an antenna 10, transmits energy from a device to the antenna 10 during transmitting, and from the antenna 10 to a host device during receiving (Fig. 1-6, Col. 3 Lines 23-26), which also insists an existing wireless communication system.

As to applicant's argument to claim 1 and 4 regarding the references cited fails to disclose using an audio interface block or coupling with a microprocessor, examiner respectfully disagrees. Phillip discloses a data processor 62, electrically connected to the radiotelephone card 32 via a PCMCIA interface 13, which provides audio input and output functions to and from the radiotelephone card 32 via adapter 30 (Fig. 4, Col. 5 Lines 7-10).

As to applicant's argument to claim 1 and 4 regarding the references cited fails to disclose the specific devices of a microphone and a loudspeaker as an audio input and output device, examiner respectfully disagrees. Phillips discloses a PCMCIA interface in conjunction with a radiotelephone card with audio input/output functions, as noted above. In addition, Phillips discloses in Figure 4 an audio connection/jack, wherein it is inherent to connect a microphone as a type of input audio device and a loudspeaker as a type of an output audio device.

As to applicant's argument to claim 3 regarding the references cited fails to disclose the specific matching disclosed in this claim, examiner respectfully disagrees.

Phillips discloses a radiotelephone card connected to a PCMCIA interface throughout the disclosure. Harrell et al. additionally discloses a PCMCIA card throughout the disclosure. Furthermore, Cockson et al. discloses a PCMCIA antenna throughout the disclosure. The above is read onto the claimed modem is supplied in the standard shape, size, and configuration to match the PCMCIA standards as developed by the computer industry.

As to applicant's argument to claim 6 regarding the references cited fails to disclose the claimed electrical connector, examiner respectfully disagrees. Phillips discloses a plurality of pins that form a male connector configured to receive a corresponding female connector of a PCMCIA card (Col. 3 Lines 43-45), which is read as the claimed electrical connector comprising a series of electrical contacts, wherein said electrical connector is of an arrangement as defined by computer industry for PCMCIA connections.

As to applicant's argument to claims 2 and 12 regarding the references cited fails to disclose a wireless relay system, examiner respectfully disagrees. According to Newton's Telecom Dictionary, a relay is a station which receives signals and rebroadcasts them on the same/different frequency. Additionally, Newton's Telecom Dictionary encompasses a relay to be a satellite in the sky (Page 694). Since Shah et al. does disclose a satellite communication (Col. 9 Line 64), which inherently consists of satellites, Shah et al. does in fact disclose a satellite link and a relay wireless communication system.

As to applicant's argument to claims 7, 8, 10 and 11 regarding the references cited fails to disclose at least three tuner cards, examiner respectfully disagrees. According to Figure 5 of applicant's Drawings, there exists one multi-tuner module that encompasses only one embodiment of a tuner card. Since there exists only one embodiment of a multi-tuner card, examiner reads the claimed at least three tuner cards as being a single multiple functioning multi-tuner card as shown in Figure 5 of applicant's specification. Shah et al. does disclose a system in which there includes at least three databases, wherein the information from the databases allow to divide at least two regions or segments onto a display (Fig. 5, Col. 5 Lines 20-22 & Col. 6 Lines 59-61). This multiple function scheme to divide a display into at least two regions or segments disclosed in the system of Shah et al. is read as the claimed at least three tuner cards.

As to applicant's argument to claim 13 regarding the references cited fails to disclose handshake verification, examiner respectfully disagrees. As noted above in the rejection of claim 13, the DSP inherently performs all necessary operations on the data, including handshaking verification, through a series of built in algorithms in order to communicate to the modem. Additionally, according to Newton's Telecom Dictionary, a handshake is the series of signals between a computer and another peripheral device (for example, a modem) that establishes the parameters required for passing data (Page 385). By definition of a handshake, it is therefore inherent that the modem disclosed by Dykes et al. includes a handshaking verification scheme.

10. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to My X. Nguyen whose telephone number is (571) 272-2835. The examiner can normally be reached on Monday through Friday at 8:00AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.X.N.
12/14/2005


DUC NGUYEN
PRIMARY EXAMINER